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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,161	11/07/2001	Shinichi Kikuchi	P 284084 T4A0A-01S0954-1	4884
909	7590	04/21/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			TOPGYAL, GELEK W	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/986,161	<b>Applicant(s)</b> KIKUCHI ET AL.	
	<b>Examiner</b> Gelek Topgyal	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-8 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on November 7, 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date: _____                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____                                                                       | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hioki (JP8017137) in view of Browne (WO 92/22983).

Hioki teaches a recording rate automatic setting recording device, comprising: recording means for recording a video signal on an information recording medium (Abstract, and Para 133, Hioki teaches that the video program is recorded onto a magneto-optical disk 66); reserved recording time detecting means for, on the basis of recording reservation information, detecting a reserved recording time needed for reserved recording (Abstract, and Para. 132, 133 and 212, Hioki discloses that "chart-lasting-time" can be preset to a particular recording using chart-lasting-time directions circuit 74); Hioki teaches a remaining capacity calculating means for detecting a remaining capacity of a first recording surface (Abstract and Para.132-133, and 156, Hioki teaches that the total remaining storage capacity is calculated); recording bit rate setting means for setting a recording bit rate, on the basis of the entire remaining capacity calculated by the remaining capacity calculating means and the reserved recording time detected by the recording time detecting means (Abstract and Para. 132-133, and 156, Hioki teaches that according to the storage capacity of a disk, a

compressibility arithmetic circuit 76 calculates a bit rate that is to be further used for recording onto the disk.); and recording control means for, in accordance with the recording bit rate set by the recording bit rate setting means and the recording reservation information, recording a target video signal onto the first and second recording surfaces of the information recording medium (Abstract, and Para. 156, Hioki teaches that the bit rate calculated is used to record the video program onto the disk).

Hioki fails to teach a means for calculating the remaining capacity of a second recording surface of the information recording medium, and for calculating a capacity, in which the remaining capacities of both surfaces are added together, as an entire remaining capacity;

In an analogous art, Browne teaches in pages 10-11 and in Fig. 1, element 104, that the storage section employs large capacity random access devices, which may include optical and magnetic disks, RAM memory, and high-density floppy disks. Browne further teaches that the plurality of storage devices are summed together to allow the user to record TV programs utilizing all free space available (Pg. 20, last paragraph, and see Fig. 3, element 305 and Fig. 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the multiple storage devices and the capability to sum the free space available as taught by Browne into the recording rate automatic setting recording device of Hioki to allow for maximum storage space for recording preset video programs.

***Allowable Subject Matter***

3. Claims 2-8 are deemed allowable.
4. The following is an examiner's statement of reasons for allowance: The present invention is directed towards a recording rate automatic setting recording device.
5. Independent claim 2 identifies the uniquely distinct features for a remaining capacity calculating means for detecting an entire capacity and a remaining capacity of a first recording surface of the information recording medium which can be accessed by the recording means, and for, assuming a capacity which is at least half of the entire capacity of the first recording surface to be a remaining capacity of a second recording surface of the information recording medium, calculating a capacity, in which the remaining capacity of the first recording surface and the remaining capacity of the second recording surface are added together, as an entire remaining capacity. The closest prior art, Hioki (JP8017137), Browne (WO 92/22983), Kaneko (US 6,671,454), and Fukushima (US 6,584,272) disclose recording device that allows recording bit rates to be changed according to available free space on a recording medium, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.
6. Claims 3-7 are dependent on independent claim 2, and therefore are allowable.
7. Independent claim 8 identifies the uniquely distinct features for detecting an entire capacity and a remaining capacity of a first recording surface of an information recording medium; assuming a capacity which is at least half of the entire capacity of the first recording surface to be a remaining capacity of a second recording surface of

the information recording medium; calculating a capacity, in which the remaining capacity of the first recording surface and the remaining capacity of the second recording surface are added together, as the entire remaining capacity. The closest prior art, Hioki (JP8017137), Browne (WO 92/22983), Kaneko (US 6,671,454), and Fukushima (US 6,584,272) disclose recording device that allows recording bit rates to be changed according to available free space on a recording medium, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited references are related to a video recording device to automatically set recording bit rates according to available free space.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gelek Topgyal whose telephone number is 571-272-8891. The examiner can normally be reached on 8:30am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gelek Topgyal  
4/3/2006



THAI TRAN  
PRIMARY EXAMINER